CLAIMS

1. A substrate cleaning apparatus for cleaning a substrate by supplying a cleaning liquid and then drying a cleaned substrate, comprising:

a substrate holding mechanism configured to hold the substrate; and

a rotating mechanism configured to rotate said substrate holding mechanism;

wherein at least one of components of said substrate cleaning apparatus has a surface structure to which droplets are hardly attached.

2. A substrate cleaning apparatus according to claim 1, wherein said surface structure comprises an inclined surface or a curved surface which enables droplets to flow down.

3. A substrate cleaning apparatus according to claim 2, wherein said rotating mechanism has said components which includes a first member and a second member, and said first member is located above said second member and an outer periphery of said first member is located radially outwardly of an inner periphery of said second member.

4. A substrate cleaning apparatus according to claim 2, wherein said substrate holding mechanism has said components including at least three arms, and said inclined surface of each of said at least three arms is inclined downwardly toward radially outward direction.

5. A substrate cleaning apparatus according to claim 1, wherein said surface structure comprises a liquid repellent material or a coating of a liquid repellent material.

6. A substrate cleaning apparatus according to claim 1, wherein said substrate holding mechanism holds an outer peripheral portion of the substrate.

7. A substrate cleaning apparatus according to claim 1, wherein said rotating mechanism rotates said substrate holding mechanism at a variable rotational speed.

8. A substrate cleaning method for cleaning a substrate by supplying a cleaning liquid and then drying a cleaned substrate, comprising:

holding the substrate by a substrate holding mechanism; and

rotating the substrate held by said substrate holding mechanism by a rotating mechanism to remove droplets from the substrate and dry the substrate;

wherein a rotational speed of the substrate is changed stepwise in said rotating the substrate.

9. A substrate cleaning method according to claim 8, wherein said rotational speed of the substrate comprises a low rotational speed of the substrate for removing droplets from components of said substrate holding mechanism and a high rotational speed of the substrate for spin-drying the substrate.

10. A substrate cleaning method according to claim 8, wherein at least one of said substrate holding mechanism and said rotating mechanism includes at least one component having a surface structure to which droplets are hardly attached.

11. A substrate cleaning method according to claim 10, wherein said surface structure comprises an inclined surface or a curved surface which enables droplets to flow down.

12. A substrate cleaning method according to claim 10, wherein said surface structure comprises a liquid repellent material or a coating of a liquid repellent material.